

# EXHIBIT D

Scott Guelcher

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UNITED STATES DISTRICT COURT  
SOUTHERN DISTRICT OF WEST VIRGINIA  
AT CHARLESTON

IN RE: ETHICON, INC., PELVIC )  
REPAIR SYSTEM PRODUCTS )  
LIABILITY LITIGATION )  
\_\_\_\_\_)  
THIS DOCUMENT RELATES TO THE )Master File No.  
FOLLOWING CASES IN WAVE 1 OF )2:12-MD-02327  
MDL 200: ) MDL 2327  
Marty Babcock v. Ethicon, Inc. )JOSEPH R. GOODWIN  
Civil Action No. 2:12-cv-01052 )U.S. DISTRICT  
JUDGE  
[Complete caption below] )

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DEPOSITION OF

SCOTT GUELCHER

Taken on behalf of the Defendants

March 23, 2016

8:51 a.m.

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1 Q. Fair enough. My question, though, as  
2 it relates to pelvic organ prolapse products, have  
3 you discussed those opinions as they relate to  
4 pelvic organ prolapse products with anyone else?

5 A. I -- I don't believe so.

6 Q. Doctor, have you -- have you ever told  
7 any doctor at Vanderbilt that you have concerns  
8 about the safety of polypropylene or PROLENE mesh?

9 A. I had some email correspondence with a  
10 Vanderbilt OB/GYN. I had some -- we -- it wasn't  
11 about -- it wasn't about opinions about the  
12 products. It was about research on polypropylene  
13 oxidation. But I haven't discussed my opinions  
14 with them.

15 Q. Okay. Do you know how many doctors  
16 practice medicine at Vanderbilt?

17 A. No.

18 Q. Have you ever told a doctor at  
19 Vanderbilt that you believe PROLENE mesh degrades  
20 via oxidation?

21 A. No. I haven't had the opportunity.

22 Q. Doctor, you -- your lawyers -- or a  
23 lawyer sitting to the right of you is producing me  
24 a flash drive with all the documents you have

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1 A. Yes, I am.

2 Q. The Society for Biomaterials?

3 A. Yes.

4 Q. Research Society For Bone and Joint  
5 Injectable Biomaterials?

6 A. Yes.

7 Q. I noticed that your expert report,  
8 which is marked as Exhibit 2, doesn't include those  
9 professional societies. Why not?

10 A. They're listed on my CV, which is part  
11 of the report. I -- I don't know why. I just  
12 didn't list them.

13 Q. Doctor, do you recall -- did you ever  
14 read the deposition transcript from the Mullins  
15 litigation?

16 A. I don't remember. I've -- I just don't  
17 remember.

18 Q. Have any of your opinions changed since  
19 you were deposed in the Mullins litigation?

20 A. No.

21 Q. What has been your total billing amount  
22 that you have billed plaintiff attorneys since the  
23 Mullins litigation?

24 A. Oh, in this particular case. I

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1 submitted a bill for the report, for 10,000 for the  
2 medium report.

3 Q. What about any charges for your time?

4 A. For this litigation? I don't think so.  
5 Oh. No. This -- this is the only -- that was the  
6 only one for this litigation.

7 Q. Have you done any additional work since  
8 the Mullins deposition regarding mesh?

9 A. What do you mean by "work"? Do you  
10 mean testing or reading? I'm not sure what you  
11 mean.

12 Q. Well, any other work that you believe  
13 is applicable to the mesh litigation since you were  
14 deposed in Mullins in September 2015.

15 A. I -- I've not done any -- any testing.  
16 I've done more reading, research. But I've not  
17 done any testing since that time.

18 Q. What additional research have you done?

19 A. Reviewing the newer papers that were in  
20 the report, reviewing the -- the Ethicon internal  
21 documents, that sorts of activities.

22 Q. The "newer papers" that you're  
23 referring to, are those contained in your expert  
24 report?

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1 Q. Do you still defer to Dr. Dunn on the  
2 interpretations of the FTIR spectra?

3 A. I do.

4 Q. And you disclosed this work in the  
5 Perry litigation, didn't you? That was for TVT  
6 ABBREVO?

7 A. The ABBREVO would be another product.  
8 Yes.

9 Q. And you attempted to rely on this paper  
10 in the Perry litigation, didn't you?

11 MR. BOWMAN: Object to form.

12 THE WITNESS: I -- I just don't  
13 remember. It may have been on the -- on the -- on  
14 the reliance list, but I don't -- I know it came up  
15 in the deposition, but I deferred to Dr. Dunn for  
16 the experimental details in the deposition. That's  
17 what I remember.

18 BY MR. HUTCHINSON:

19 Q. Did you rely on this, Doctor, in  
20 forming your opinions in the Perry litigation  
21 regarding TVT ABBREVO?

22 A. I don't believe so. I mean, my  
23 opinions have not changed in some time. So this  
24 was supplemental information that supported my

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1 opinion, but -- and it was on the reliance list  
2 but -- I think it was. I just -- I can't remember  
3 the details.

4 Q. Doctor, you relied on this work, that  
5 we've marked as Exhibit 3 to your deposition, in  
6 the Winebarger versus Boston Scientific litigation;  
7 is that correct?

8 A. Winebarger? What product was this? I  
9 can't remember the names -- the plaintiff name.

10 Q. It was a lawsuit styled Winebarger,  
11 W-i-n-b-a-r-g-e-r, versus Boston Scientific.

12 A. That name just doesn't sound -- was it  
13 part of a wave? Was it -- I just don't remember  
14 the plaintiffs' names probably.

15 Q. Do you recall relying on this work that  
16 was marked as Exhibit 3 in the Winebarger versus  
17 Boston Scientific litigation?

18 A. I don't. Because I don't recall the  
19 litigation. I just -- I don't -- the -- the  
20 plaintiff's name is -- that doesn't sound familiar  
21 to me.

22 Q. Okay. Doctor, when we look at Exhibit  
23 3, what product was used in your work?

24 A. It's been some time. I don't remember.

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1 an answer, based upon a reasonable degree of  
2 scientific certainty. Can you testify today, to a  
3 reasonable degree of scientific certainty,  
4 regarding the specific names of the products used  
5 in this experiment?

6 A. I mean, I believe, to a reasonable  
7 degree of scientific certainty, that's what we --  
8 that's what we used. That's what I remember. You  
9 know, I work closely with Dr. Dunn. Our offices  
10 are right beside each other. So, I mean, he --  
11 he -- that's what I believe he did.

12 Q. Okay. And, Doctor, when you were  
13 deposed in September in the Mullins litigation, you  
14 didn't rely on this abstract for your opinions in  
15 that; is that correct?

16 A. I don't believe so.

17 Q. And you're not relying on the abstract  
18 that you published for your opinions in this  
19 litigation; is that correct?

20 A. No, I'm not.

21 Q. Okay. Why not?

22 A. Well, we -- we -- we would like to  
23 publish it. And that's something -- that's part of  
24 what we're -- we -- we just -- we're -- we're

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1 working on it. We don't know what we're going to  
2 do yet. It's just -- you know, we have -- very  
3 busy, and it's -- I don't -- I don't know what the  
4 plan is. But I'm not relying on it because we  
5 haven't published it.

6 Q. Okay. Any other reasons?

7 A. No. That's the main reason. I -- I  
8 believe the Court likes to see published studies  
9 and that's --

10 Q. Okay.

11 A. -- that -- that's our plan.

12 Q. But it's fair to say that you've  
13 written a paper that investigated oxidative  
14 degradation of polypropylene mesh in vitro using an  
15 oxidative medium and you're not relying on that  
16 work in this litigation?

17 MR. BOWMAN: Object to form.

18 THE WITNESS: Can you repeat that? I'm  
19 sorry.

20 BY MR. HUTCHINSON:

21 Q. Yes.

22 A. It was long.

23 Q. It's fair to say that you've written a  
24 paper --

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1 A. Okay.

2 Q. -- that investigated oxidative  
3 degradation of polypropylene using an oxidated  
4 medium and you're not relying on it in this  
5 litigation; is that fair to say?

6 A. I would say it's a submitted abstract.  
7 This is a submitted abstract. I wouldn't call this  
8 a paper. It's a published abstract, and it is peer  
9 reviewed but not like a paper. It's not -- I'm not  
10 relying on it.

11 Q. And --

12 A. And that -- go ahead.

13 Q. What is the status of this work,  
14 Doctor?

15 A. As I said, I -- I -- I don't know. We  
16 don't know what we're going to do with it yet.

17 Q. When is the last time you talked to  
18 Dr. Dunn about this?

19 A. I don't remember.

20 Q. Has it been more than six months?

21 A. Probably not. But I just don't -- I  
22 don't remember what we said about this. We  
23 haven't -- I haven't relied on it in the recent  
24 litigation in some time. And it's -- you know,

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1 Q. And, Doctor, for the POP products, do  
2 you know the weight of the mesh per meter squared?

3 A. I don't remember them all. The  
4 GYNEMESH is 45 grams per square meter. The -- the  
5 PROLIFT+M, that's the one that's the blend, has the  
6 resorbable polyester. After the polyester resorbs,  
7 the density is 28. So it's probably, roughly, you  
8 know, half, something in that range. So as the  
9 polyester resorbs, the density goes down.

10 Q. And, Doctor, if we look at the Moalli  
11 paper --

12 A. Okay.

13 Q. -- that you have, the mesh didn't  
14 oxidize after 12 weeks, did it?

15 A. Well, she wasn't testing for oxidation.  
16 She was looking at the cellular response. So I  
17 wouldn't say that it didn't oxidize. I just -- I  
18 don't think she reported that it did. But I don't  
19 know that she really did any testing for that.

20 Q. A causal relationship wasn't  
21 established in that paper, was it, sir?

22 A. A causal relationship --

23 Q. Correct --

24 A. -- between what?

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1 A. Okay.

2 Q. -- Number 1 --

3 A. So we -- okay. Go ahead. Sorry.

4 Q. Number 1 discusses "polypropylene  
5 reacts with molecular oxygen by autoxidation  
6 outside the body at elevated temperatures,  
7 resulting in chain scission and deterioration. . ."

8 Do you see that?

9 A. Yes.

10 Q. At what elevated temperatures outside  
11 the body?

12 A. I have to look at the details again.  
13 Temperatures above 100 C. That is 100 Celsius.

14 Q. And -- and what is the normal body  
15 temperature in Celsius degrees of the human body?

16 A. 37.

17 Q. And what is autoxidation, Doctor?

18 A. Well, "autoxidation" is a term that  
19 some use to describe the reactive -- the reaction  
20 of the polypropylene with molecular oxygen at  
21 elevated temperatures.

22 Q. And we don't have elevated temperatures  
23 in the body, in vivo, do we, to the point where it  
24 would autoxidate?

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1 MR. BOWMAN: Object to the form.

2 THE WITNESS: Well, the body  
3 temperature is 37 degrees C. So that reaction with  
4 molecular oxygen would be slow. I mean. . .

5 BY MR. HUTCHINSON:

6 Q. In fact, have you quantified how slow  
7 it would be?

8 A. Well, I mean, Leibert addressed that  
9 question with molecular oxygen.

10 Q. But my question to you, sir, is have  
11 you personally quantified that?

12 A. No. Because I don't think it's  
13 relevant because there's more reactive forms of  
14 oxygen in the body that are causing the reaction.  
15 So. . .

16 Q. What is -- what is required for PROLENE  
17 to undergo autoxidation?

18 A. Well, PROLENE will undergo oxidation  
19 with molecular oxygen. It -- it -- it can happen  
20 at lower temperatures. It's just very, very slow.

21 Q. Okay.

22 A. So, I mean, it happens faster. Like  
23 any chemical reaction --

24 Q. I understand.

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1 THE WITNESS: Well, I mean, the paper  
2 published in 2015 by Mays, et al., showed  
3 reductions in molecular weight. Now, that wasn't  
4 PROLENE, but it was still polypropylene with  
5 antioxidants.

6 BY MR. HUTCHINSON:

7 Q. Okay.

8 A. It's very similar material.

9 Q. Okay. Let's -- let's focus on PROLENE,  
10 though, Doctor.

11 What scientific evidence do you have  
12 for chain scission having occurred with PROLENE in  
13 vivo?

14 MR. BOWMAN: Object to form.

15 THE WITNESS: PROLENE in vivo. I don't  
16 know of a study that specifically looked at chain  
17 scission of PROLENE in vivo.

18 BY MR. HUTCHINSON:

19 Q. And, Doctor, what scientific evidence  
20 do you have for any PROLENE implant having oxidized  
21 to produce a carbonyl group, a C double bond O?

22 A. Can we go back to the chain scission  
23 one? I just remembered something or -- or I need  
24 to answer this first.

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1           A.           Clavé would be the one that -- I think  
2 Céline Mary discussed this as well.

3           Q.           Okay. And is that the only scientific  
4 evidence that you're relying on is Clavé and the  
5 internal Ethicon documents for a PROLENE implant  
6 having oxidized to produce a carbonyl group?

7                       MR. BOWMAN: Object to form.

8                       THE WITNESS: Those are the documents  
9 that come to mind that I've testified about before.  
10 BY MR. HUTCHINSON:

11          Q.           Okay. Doctor, do you have -- and let's  
12 talk about -- my question is very specific as it  
13 relates to the nine specific products that you're  
14 here to give testimony about.

15          A.           Okay.

16          Q.           TVT, TVT-O, TVT ABBREVO, TVT-SECUR, TVT  
17 EXACT, PROSIMA, GYNEMESH PS, PROLIFT, and  
18 PROLIFT+M. Okay?

19          A.           Yes.

20          Q.           So my question, when I talk about the  
21 nine products, that's what I'm talking about.

22          A.           I understand.

23          Q.           All right. Do you have any scientific  
24 evidence that any of those nine products were

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1 implanted and oxidized to produce a carbonyl group?

2 A. Again, the only study that could have  
3 included those devices would be the Clavé study  
4 where he took the 100 explants. And also the study  
5 with Dr. Iakovlev, but that was looking more at --  
6 that was explanted mesh as well, that looked at the  
7 degradation layer. But not -- well, he did look at  
8 the question of oxidation indirectly with the  
9 myeloperoxidase staining that we saw.

10 Q. Right. But not specifically for those  
11 nine products, correct?

12 A. Those nine products were not  
13 specifically mentioned in the Iakovlev study that I  
14 remember.

15 Q. Thank you.

16 So the only -- the only paper that  
17 you're relying on as it relates to whether any of  
18 those nine products oxidized to produce a carbonyl  
19 group, after it was implanted in vivo, is the Clavé  
20 study; is that correct?

21 MR. BOWMAN: Object to form.

22 THE WITNESS: For those nine products,  
23 that would be the one that I would. . .

24 BY MR. HUTCHINSON:

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1 Iakovlev study, we -- there were a lot of explants,  
2 but they weren't specifically named. They were  
3 slings, POPs, maybe some hernia mesh, too. But  
4 they -- the products weren't specifically named.  
5 So I -- I -- I can't -- I mean, it was a number of  
6 devices, right?

7 BY MR. HUTCHINSON:

8 Q. Yeah.

9 A. Not -- not -- those specific products  
10 were not named.

11 Q. Right. So I'm not asking about whether  
12 or not Iakovlev named them. My question to you,  
13 sir, is do you have any scientific evidence that  
14 any of those nine products have become embrittled  
15 in vivo?

16 MR. BOWMAN: Object to form.

17 THE WITNESS: Again, not direct -- what  
18 did you say? Embrittled? I mean, there's no  
19 direct evidence that those specific products has  
20 been published.

21 BY MR. HUTCHINSON:

22 Q. And nor do you have any scientific  
23 evidence that any of those nine products have  
24 become embrittled, do you?

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1 MR. BOWMAN: Object to form.

2 THE WITNESS: I guess I'm a little hung  
3 up on scientific evidence. I mean, you mean  
4 directly measured, right? Reported?

5 BY MR. HUTCHINSON:

6 Q. (Indicating yes.)

7 A. I mean, I believe -- well, you know my  
8 opinions. But I --

9 Q. Well, I'm trying to find out your  
10 opinions.

11 A. Okay.

12 Q. So my opinions are -- that's the goal  
13 of today.

14 A. No. I understand. But -- okay. So  
15 I'll state it again. I mean, I believe -- I don't  
16 want to argue about it. I mean, I believe that  
17 those devices are made of polypropylene, which  
18 these fundamental chemical reactions apply to.  
19 Now, has anyone specifically measured it for those  
20 devices? I -- I -- I don't know that that's been  
21 reported, but I believe the body of scientific  
22 evidence says that that's what's happening. That's  
23 my opinion. Okay?

24 Q. But my question to you, do you know of

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1 Q. Nor are you aware of any evidence that  
2 any of those nine products, specific products, have  
3 become embrittled in vivo, are you?

4 MR. BOWMAN: Object to form.

5 THE WITNESS: Again, I've not seen  
6 anybody actually measure that, I mean, if that's  
7 what you're. . .

8 BY MR. HUTCHINSON:

9 Q. And you haven't measured that, have  
10 you?

11 A. No.

12 Q. And, Doctor, are you aware of any  
13 scientific evidence that any of those nine products  
14 have lost molecular weight in vivo?

15 MR. BOWMAN: Object to form.

16 THE WITNESS: For those nine specific  
17 products, no one has shown -- published that they  
18 lose molecular weight.

19 BY MR. HUTCHINSON:

20 Q. And are you aware, personally, of any  
21 evidence that any of those nine specific products  
22 have lost molecular weight in vivo?

23 A. Could you rephrase that? I didn't --

24 Q. Are you personally aware of any

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1 MR. BOWMAN: Object to form.

2 THE WITNESS: I'd have to refresh  
3 myself with the documents. I -- I -- I can't  
4 remember them.

5 BY MR. HUTCHINSON:

6 Q. And as a material scientist, you'll  
7 agree that PROLENE has a different chemical  
8 composition than pure polypropylene, correct?

9 A. So PROLENE has two antioxidants, one  
10 designed to prevent oxidation during  
11 high-temperature processing, another during  
12 storage. There are flow additives designed to make  
13 extrusion easier, calcium stearate, some  
14 surfactants. So there's other additives in there,  
15 but those additives are added mainly for  
16 manufacturing, in my understanding.

17 Q. Right. But PROLENE has a chemical  
18 different composition -- strike that.

19 PROLENE has a different chemical  
20 composition than pure PROLENE, correct?

21 MR. BOWMAN: Object to form.

22 BY MR. HUTCHINSON:

23 Q. I'm sorry. PROLENE has a different  
24 chemical composition than pure polypropylene,

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1 correct?

2 A. Well, the -- yeah, the composition's  
3 different because it has these additives.

4 MR. HUTCHINSON: I'm sorry. Did he say  
5 "well, yeah"?

6 (Whereupon the previously mentioned  
7 answer was read back by the reporter.)

8 THE WITNESS: I probably said -- yes,  
9 it's -- it has additives.

10 BY MR. HUTCHINSON:

11 Q. Doctor, turn to Exhibit 1. I'll  
12 represent to you and the Court that there are 44  
13 different plaintiffs named on the notice of  
14 deposition, starting with Marty Babcock --

15 A. Okay.

16 Q. -- and ending with Thelma Wright.  
17 That's 44 different cases.

18 A. I see.

19 Q. Did you know you were designated in 44  
20 cases in this litigation?

21 A. I -- I didn't know the exact number of  
22 44. I knew it was a wave. So I knew there were a  
23 number of cases, but I wasn't familiar with the  
24 specific plaintiffs because I'm not giving

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1 of that are difficult to predict.

2 BY MR. HUTCHINSON:

3 Q. But my question is, sir, are you  
4 testifying, to a reasonable degree of scientific  
5 certainty, without having reviewed an explant, that  
6 Marty Babcock's mesh is oxidizing in her body?

7 MR. BOWMAN: Object to form.

8 THE WITNESS: I mean, I believe that  
9 the science tells you it's oxidizing. I did not  
10 specifically measure it.

11 BY MR. HUTCHINSON:

12 Q. Thank you. In fact, you didn't  
13 specifically measure oxidation of any of the women  
14 listed in Exhibit Number 1, correct?

15 A. I've already answered that. No.

16 Q. Okay.

17 A. Yeah, I didn't do that.

18 Q. And you can't tell us whether or not  
19 the mesh of any of the women listed in Exhibit 1  
20 oxidized in their body, can you?

21 MR. BOWMAN: Object to the form. Asked  
22 and answered.

23 THE WITNESS: I believe I've asked --  
24 I've answered this. I mean, it's -- the science

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1 tells you that that would be -- you would expect it  
2 to oxidize and degrade. The -- the timing of that  
3 is unpredictable. That's what I've said. I didn't  
4 measure it. But scientific evidence --  
5 polypropylene oxidizes. There are cells in the  
6 body that make reactive oxygen species, and you  
7 would expect it to oxidize in the body based on  
8 the -- what we know scientifically.

9 BY MR. HUTCHINSON:

10 Q. I understand that. But I'm -- my  
11 question is related to these 44 women. Can you  
12 tell us, to a reasonable degree of scientific  
13 certainty, whether or not the mesh, in any of these  
14 44 women, ever oxidized?

15 MR. BOWMAN: Object to form. This is  
16 asked and answered.

17 THE WITNESS: I feel like we're going  
18 to go round and round on this.

19 (Simultaneous speaking.)

20 MR. BOWMAN: I'm going to instruct him  
21 not to answer.

22 (Reporter interruption for  
23 clarification.)

24 MR. BOWMAN: I said if we're going to

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1 keep asking the same question, I'm going to start  
2 instructing him not to answer.

3 BY MR. HUTCHINSON:

4 Q. I need a clean answer, then I'll move  
5 on.

6 MR. BOWMAN: Objection.

7 THE WITNESS: I'm giving you my clean  
8 answer. I've said this in trials. I've said this  
9 in depositions. You know the record of my  
10 testimony. It hasn't changed.

11 The scientific principles states that  
12 this chemical reaction is going to occur. It's  
13 going to oxidize. The clinical implications of  
14 that are unknown. I did not specifically look at  
15 oxidation in these meshes. My testimony has been  
16 that these reactions are occurring. And the  
17 clinical implication of that in a specific patient  
18 is unknown. It's unpredictable. That's been my  
19 testimony. I --

20 BY MR. HUTCHINSON:

21 Q. And you can't tell us when it's  
22 occurring, can you, in any of these 44 women?

23 A. I think that's what unpredictable means  
24 is you don't -- you don't know when it's -- when it

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1 question.

2 BY MR. HUTCHINSON:

3 Q. All right. Doctor, have you ever  
4 instructed your students at Vanderbilt to use  
5 scientific data in reaching a conclusion?

6 MR. BOWMAN: Object to form.

7 THE WITNESS: Again, we do experiments,  
8 make measurements and test hypotheses.

9 BY MR. HUTCHINSON:

10 Q. All right. And, Doctor, let's talk  
11 about these nine specific products that you're here  
12 to give testimony about.

13 Are you aware of any data that confirms  
14 these nine specific products degraded to the extent  
15 it compromised the functionality of the product?

16 MR. BOWMAN: Object to form.

17 THE WITNESS: Again, you've asked this  
18 many times. I've not looked at physical changes in  
19 these specific products, these patients. I've not  
20 looked at that. I didn't test the explants.

21 BY MR. HUTCHINSON:

22 Q. I understand that. But my question is  
23 a little bit more general, is -- and it relates to  
24 these nine specific products, okay? Are you aware

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1 of any data that confirms these nine products will  
2 degrade to the extent their intended function is  
3 compromised during a woman's lifetime?

4 MR. BOWMAN: Object to the form.

5 THE WITNESS: Again, you asked this  
6 before and I said, no, for these products that's  
7 not been directly measured.

8 BY MR. HUTCHINSON:

9 Q. And, Doctor, do you know -- we talked  
10 about -- well, strike that.

11 Do you know what the mechanism of  
12 action of tissue negatively reacting to any of  
13 these nine products is?

14 MR. BOWMAN: Object to form.

15 THE WITNESS: Can you repeat that?

16 BY MR. HUTCHINSON:

17 Q. Right. Doctor, do you believe that the  
18 tissue in women negatively reacts to any of these  
19 nine products?

20 A. The --

21 Q. Or are you qualified to give that  
22 opinion?

23 A. Well, I believe I'm -- that's what my  
24 report is about. That's what these papers are

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1 resulting in a scar plate. I should be more  
2 precise.

3 There's the macrophages and other  
4 inflammatory cells, foreign body giant cells, that  
5 migrate into the mesh, adhere to the mesh, secrete  
6 reactive oxygen species, including hydroxyl  
7 radicles, that oxidize the polypropylene. That --  
8 that -- that's in my report. That's the -- that's  
9 the tissue response. The primary components are  
10 the fibroblasts and -- and with the collagen matrix  
11 deposition and the -- and the macrophages.

12 BY MR. HUTCHINSON:

13 Q. Doctor, can you tell us from a  
14 physiological standpoint how oxidation causes pain  
15 in a woman?

16 A. Again, it's in my report. Oxidation  
17 leads to reduction of molecular weight,  
18 embrittlement, and that can lead to cracking, which  
19 can lead to erosions and pain. It's hard plastic  
20 in the pelvic floor. That's going to cause pain.

21 Q. And oxidation also leads to reduction  
22 in physical properties, correct?

23 MR. BOWMAN: Objection to form.

24 THE WITNESS: What -- physical

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1       anatomic site. It depends possibly on the patient.  
2       It depends on lots of factors, but it's something  
3       that you can't predict, and it's something you  
4       can't design for.

5           Q.       If we look at Exhibit 6 to your  
6       deposition --

7           A.       Okay.

8           Q.       -- none of the specimens that Imel,  
9       I-m-e-l, studied were PROLENE, were they?

10          A.       These were Boston Scientific meshes, so  
11       they -- they did not include PROLENE.

12          Q.       And when a medical device is first  
13       implanted in the body, it comes in contact with  
14       body fluids, fair to say?

15          A.       Yes.

16          Q.       And macrophages are some of those body  
17       fluids.

18          A.       Well, macrophage is a cell, not a  
19       fluid.

20          Q.       Okay. Or -- or body -- body material.  
21       And macrophages contain proteins, correct?

22          A.       Well, I mean, all cells contain  
23       proteins, but it's a -- it's a cell. I mean, a  
24       cell --

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C E R T I F I C A T E

STATE OF TENNESSEE )

COUNTY OF DAVIDSON )

I, Lise S. Matthews, RMR, CRR, CCP, LCR 353, Licensed Court Reporter and Notary Public, in and for the State of Tennessee, do hereby certify that the above deposition was reported by me, and the transcript is a true and accurate record to the best of my knowledge, skills, and ability.

I further certify that I am not related to nor an employee of counsel or any of the parties to the action, nor am I in any way financially interested in the outcome of this case.

I further certify that I am duly licensed by the Tennessee Board of Court Reporting as a Licensed Court Reporter as evidenced by the LCR number and expiration date following my name below. I further certify that this transcript is the work product of this court reporting agency and any unauthorized reproduction and/or transfer of it will be in violation of Tennessee Code Annotated 39-14-104, Theft of Services.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my notarial seal this \_\_\_\_\_ day of \_\_\_\_\_, 2016.

Lise S. Matthews, RMR, CRR, CRC  
LCR 353 Expiration Date 6/30/2016  
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